

REMARKS

Claims 1-18 remain for consideration. All claims are thought to be allowable over the cited art.

Claims 4, 5, 10, 11, 16, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. No amendment is made, however, because the claims as drafted are thought to be patentable over the cited prior art.

The Office Action fails to establish that claims 1-18 are unpatentable under 35 USC §103(a) over “Park” (US Patent No. 5,757,909 to Park) in view of “Luyster” (US Patent No. 6,578,150 to Luyster). As set forth in the response to the First Office Action, the rejection is respectfully traversed because the Office Action fails to show that all the limitations are suggested by the references, fails to provide a proper motivation for modifying the teachings of Park with teachings of Luyster, and fails to show that the combination could be made with a reasonable likelihood of success.

Claim 1 includes limitations related to decoding a keystream, and the limitations as to how the keystream is decoded are not suggested by the Park-Luyster combination. The cited teachings of Park and Luyster generally reference the respective encryption and decryption techniques, and Park appears to detect an encrypted keystream (col. 10, l. 8-24). However, neither of the references appears to teach the claimed method of how a keystream is decoded.

Park’s FIGs. 7 and 9 show a keystream input to a smart card and processor. However, neither the corresponding description in Park, nor the cited teachings of Luyster in any apparent manner suggest the specific claim limitations for decoding a keystream. For example, the limitations include generating a set of test bits. The Office Action cites Luyster as teaching these limitations. However, the cited teachings of Luyster contain no apparent elements that correspond to generating test bits. The previous response requested an explanation of the specific elements of Luyster which were perceived to suggest the claimed generating test bits. But no explanation has been provided.

Other limitations of claim 1 not shown to be suggested by Park include generating a set of attempted keystream bits from differences between the test bits

and the cipher bits, and generating, from a current seed, a set of current keystream bits from a parallel feedback shift register. The previous response to the First Office Action requested an explanation of specific elements of Park and Luyster perceived to correspond to these limitations because none of the cited teachings of Park and Luyster in any apparent manner correspond to these limitations. However, the final Office Action does not provide any explanation.

Other limitations of claim 1 further refine the limitations described above. Thus, the Office Action does not show that the Park-Luyster combination suggests all the limitations of claim 1. Claims 7 and 12 include limitations similar to those of claim 1 and are not shown to be unpatentable over the Park-Luyster combination for at least the reasons set forth above. Furthermore, the Office Action fails to allege that any of the additional limitations of claims 7 and 12 over those of claim 1 are suggested by specific teachings or correspond to specific elements of the Park-Luyster combination.

Claims 2-3, 6, 8-9, 13-16 include further limitations that refine the limitations of independent claims 1, 7, and 12 as described above. Furthermore, the claims include additional limitations that the Office Action does not address in rejecting the claims. Therefore, the Office Action fails establish that the prior shows or suggests the limitations of claims 2-3, 6, 8-9, 13-16.

Claim 18 includes limitations directed to an n -bit parallel feedback shift register including n single-bit registers in an FPGA and n function generators in the FPGA. No elements of the Park-Luyster combination are alleged to suggest these limitations, and the combination does not in any apparent manner suggest these limitations. Thus, claim 18 is not shown to be unpatentable over the Park-Luyster combination.

For at least the reasons set forth above, the Office Action fails show that the Park-Luyster combination teaches all the limitations of the claims 1-3, 6-9, 12-15 and 18.

As set forth in the response to the First Office Action, the alleged motivation for combining Luyster with Park is conclusory and improper. The alleged motivation states that "it would have been obvious ... to modify the teaching of Park by including the limitation detailed above as taught by Luyster because this would prevent illegal user from decoding digital keystreams." This alleged motivation is improper because

no evidence is presented to suggest that Park's approach is in any way prone to decoding of a keystream by an illegal user. Furthermore, no evidence is presented to suggest that Luyster's approach is in any way an improvement over Park's approach. Further still, the Office Action presents no evidence and it is not apparent which elements of Park are to be modified and which elements of Luyster are to be used in the modification. Without such evidence it is not apparent that the alleged modification could be achieved with a reasonable likelihood of success.

The final Office Action states that the alleged motivation is sufficient as being based on logic and sound scientific reasoning. The only reason provided for the combination, however, is to "prevent an illegal user from decoding digital keystreams." It is not understood how this conclusion can be seen as being based on logic and sound scientific reasoning when there is no apparent evidence that Park's approach does not by itself prevent illegal decoding of digital keystreams. Therefore, the alleged motivation is improper and should be withdrawn.

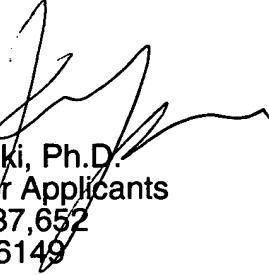
The rejection of claims 1-3, 6-9, 12-16, and 18 over the combination should be withdrawn because the Office Action fails to show all the limitations are suggested by the combination, fails to provide a proper motivation for combining the references, and fails to show that the combination could be made with a reasonable likelihood of success.

The Final Office Action, as did the First Office Action, fails to establish a *prima facie* case that the invention claims non-statutory subject matter. The response to the First Office Action traversed the rejection of claims 1, 7, and 12 under 35 USC §101 as claiming non-statutory subject matter because that Office Action did not establish a *prima facie* case that the invention as a whole is directed solely to an abstract idea or to manipulation of abstract ideas or does not produce a useful result. The Final Office Action provides no response to the arguments set forth in the response to the First Office Action, which is herein incorporated by reference, hence the Applicants request the rejection to claims 1, 7, and 12 under 35 USC §101 be withdrawn.

CONCLUSION

Reconsideration and a notice of allowance are respectfully requested in view of the Amendments and Remarks presented above. If the Examiner has any questions or concerns, a telephone call to the undersigned is invited.

Respectfully submitted,


Kim Kanzaki, Ph.D.
Attorney for Applicants
Reg. No. 37,652
(408) 879-6149

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on July 29, 2005.

Pat Slaback
Name


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